

Budgetary space for health in the Republic of Tajikistan: options for more public resources

Jens Wilkens
Alona Goroshko

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Abstract

The Republic of Tajikistan's health reform agenda to achieve universal health coverage includes improved access to high-quality health care for the entire population and more efficient use of public resources. The recently adopted National Health Strategy (*Strategy for the Healthcare of the Population of the Republic of Tajikistan, 2021–2030*) follows global evidence and recommendations, and builds on expanding primary health care. To implement the strategy, Tajikistan needs to increase considerably public funding for health and allocate resources to where they will have the most effect. Currently, budget resources for primary health care are lagging behind, and are unevenly distributed across the country, resulting in unjust gaps in health care access. Consequently, there are unjustified differences in health care utilization.

This report describes, analyses and compares alternative opportunities to increase budgetary space for health, in particular resources for primary health care. It includes four types of budgetary space opportunities and examines their potential effectiveness to generate resources: (i) higher prioritization of health within the general budget; (ii) compulsory payroll-based contributions; (iii) health taxes; and (iv) efficiency gains in the hospital sector that can be reallocated to more effective and productive primary health care. Higher budget priority to health and health taxes could enable higher health spending, and efficiency gains could substantially improve resource use, while compulsory payroll-based contributions would generate very little additional resources. Payroll-based contributions (or social taxes) are not a realistic strategy to meet the need for additional resources in health for Tajikistan due to the labour market structure. It would also go against recent government interventions to decrease the tax burden on the private sector. Tajikistan's funding strategy for health must be realistic and reflect the very limited role payroll contributions could have as a source of funds.

Keywords

BUDGETARY SPACE
PUBLIC RESOURCES FOR HEALTH
PRIMARY HEALTH CARE FUNDING
HEALTH INSURANCE
HEALTH TAXES
HEALTH PROVIDER EFFICIENCY
TAJIKISTAN
UNIVERSAL HEALTH COVERAGE

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Abbreviations

ALOS	average length of stay
COVID-19	novel coronavirus disease (COVID-19)
DRS	Districts of Republican Subordination (central government jurisdiction)
GATS	Global Adult Tobacco Survey
GBAO	Gorno-Badakhshan Autonomous Region
GDP	gross domestic product
ISO	International Organization for Standardization
MHI	mandatory health insurance
NCDs	noncommunicable diseases
NHSRT	Strategy on Healthcare of the Population of the Republic of Tajikistan up to 2030
OECD	Organisation for Economic Co-operation and Development
OOP	out-of-pocket
PHC	primary health care
PPP	purchasing power parity
SGBP	State Guaranteed Benefits Programme
SSB	sugar-sweetened beverages
TJS	Tajik somoni (currency)
UHC	universal health coverage
VAT	value-added tax

Alpha-3 ISO country codes

ARM	Armenia
AUT	Austria
AZE	Azerbaijan
BGR	Bulgaria
BIH	Bosnia and Herzegovina
BLR	Belarus
CHE	Switzerland
CYP	Cyprus
CZE	Czechia
DEU	Germany
ESP	Spain
EST	Estonia
FRA	France
GEO	Georgia
GRC	Greece
HRV	Croatia
HUN	Hungary
IRL	Ireland
ISR	Israel
ITA	Italy
KAZ	Kazakhstan
KGZ	Kyrgyzstan
LTU	Lithuania
LUX	Luxembourg
LVA	Latvia
MDA	Republic of Moldova
MKD	North Macedonia
MLT	Malta
MNE	Montenegro
NLD	Netherlands
NOR	Norway
PRT	Portugal
RUS	Russian Federation
SRB	Serbia
SMR	San Marino
SVK	Slovakia
SVN	Slovenia
TJK	Tajikistan
TKM	Turkmenistan
TUR	Türkiye
UKR	Ukraine
UZB	Uzbekistan

Executive summary

The Republic of Tajikistan has an ambitious health reform agenda for the coming decade, including decisive steps towards universal health coverage. Improved access to high-quality health care for the entire population and more efficient use of public resources are important elements of the National Health Strategy 2030 (*Strategy for the Healthcare of the Population of the Republic of Tajikistan, 2021–2030*). This will support continued growth in wealth and health outcomes. The strategy, following global evidence and recommendations, builds on expanding primary health care. This will enable more preventive services, earlier detection of illness, and ultimately more efficient use of resources.

To meet its ambitions, Tajikistan needs to considerably increase public funding for health and spend funds where they will have most impact. In particular, budget resources for primary health care are lagging behind compared to most countries in the region and when measured against best practice. These resources are also very unevenly distributed across the country and are not best spent to meet the greatest health care needs. Consequently, there are unjustified differences in health care utilization, in addition to inefficiencies caused by geographical and health care provider misallocations.

This report describes, analyses and compares alternative opportunities to increase budgetary space for health, and in particular resources for primary health care. Budgetary space is a concept for analysing revenues and expenditures, primarily in the public sector, and of exploring avenues for increasing, managing and making more use of these resources. The report includes four types of budgetary space opportunities with regards to their potential effectiveness to generate resources:

- i. higher priority given to health in the general budget (on all budget levels);
- ii. compulsory payroll-based contributions;
- iii. health taxes; and
- iv. efficiency gains in the hospital sector that can be reallocated to more effective and productive primary health care.

Increasing the prioritization of health within the budget can – along with health taxes – enable higher health spending. Higher public spending on health is expressed in several government strategies and resolutions, both in absolute numbers and its relative importance within the Government's budget. This report shows that a budget priority to

health at 15% of general government expenditure would increase the available public resources for health by 44%. Increasing health taxes has the potential to reduce the prevalence of noncommunicable diseases and in addition to increase available public resources, which can in turn support more funding for health.

Efficiency gains can substantially improve resource use. Increasing efficiency does not require additional resources, but rather results the money already available being put to better use. Considering the hospital sector in Tajikistan alone, this report estimates that expenditures equivalent to 19% of the current health budget can be saved without decreasing any necessary hospital services. It is important that efficiency gains from changing how services are provided are safeguarded for reinvestment in the health sector.

Compulsory payroll-based contributions would generate very little additional resources. Payroll-based contributions (or social taxes) are not a realistic strategy to meet the need for additional resources in the Tajik health sector. With the current labour market environment, it is estimated that a 5% payroll contribution from non-budgetary entities would collect the equivalent of 3% of the health budget. In addition, there is a risk that other social sectors would suffer, and that the additional tax burden on the labour market would be detrimental to the economy. It would also go against recent Government intervention to decrease the tax burden on the private sector. Therefore, the funding strategy and legislation for Tajikistan's future mandatory health insurance system must reflect the very limited role payroll contributions could have as a source of funds.

The public funding strategy for health needs to apply a combination of budgetary space options. No single collection mechanism or efficiency improvement will adequately supply the needed resources for health. Instead, several alternatives must be used simultaneously. This report is not exhaustive and for each alternative there are many implementation choices to consider. However, it is important that the Government of Tajikistan acts on the opportunities available and accelerates its expressed efforts to increase budgetary space, which would support the move towards universal health coverage.

1. Introduction

1.1. The health sector development agenda in Tajikistan

1. Approved by Resolution No. 368 of the Government of the Republic of Tajikistan, 2 August 2010 (Ministry of Health, 2010)

Recently the Government of Tajikistan launched the *Strategy on Healthcare of the Population of the Republic of Tajikistan up to 2030* (known as the NHSRT 2030) (Ministry of Health and Social Protection, 2021). The NHSRT 2030 is ambitious and comprehensive; it includes all the necessary reform aspects to help the Tajik health system meet current and future health challenges, in the context of a changing disease burden and ever-increasing demands resources, requiring them to be used efficiently. While it outlines several concrete policies that will enable the country to build a stronger health system, the challenge is to implement these policies across the entire country.

The NHSRT 2030 demonstrates the need for greater public resources for health. The Government's high ambitions for health will require investment, yet Tajikistan currently invests too low a share of its societal resources in the health sector, which has consequences for the performance of the health system. To meet the ambition of strengthening the public commitment to the health sector, several measures are proposed in the NHSRT 2030:

- strengthening resource mobilization; that is, finding additional resources that can be allocated to health in a sustainable manner;
- prioritizing health within the general public budget; and
- increasing the use of mid-term budget planning to strengthen predictability and adjust priorities within the health sector.

A core strategic direction highlighted in the NHSRT 2030 is raising the quality and expanding the scope of primary health care (PHC). Both the National Health Strategy 2010–2020¹ (Ministry of Health, 2010) and the NHSRT 2030 emphasize the importance of improving detection and management of chronic conditions as a key investment in the Tajik health sector. In addition, several promising projects are developing and have already had an impact; for example, the development of the State Guaranteed Benefits Programme (SGBP) and a concretization of funding requirements with the national capitation norm for primary care. These, along with other, related efforts, need to be further developed in order to meet their true potential.

1.2. Moving towards UHC requires prioritizing PHC

Universal Health Coverage (UHC) means that all individuals in a society have access to and make use of the health care they need. It has been shown that focusing funding and service provision on less affluent population groups is an effective way to raise overall achievement of UHC.

It is a powerful strategy to ensure everybody can make use of essential services and to minimize the risk of financial hardship due to health care needs; that is, to ensure households do not have to sacrifice other essential needs, such as housing, nutrition or schooling (Cotlear et al., 2015).

To achieve UHC in Tajikistan, PHC must be given the highest priority when funding health care. For all patient groups, additional resources spent early in the care continuum pay off better than at a later stage. Consequently, prioritizing prevention and early interventions – core tasks in PHC – increases the efficiency of health spending. In addition, it raises the chance of better quality of life for the individual patient. Effective PHC also relieves hospitals of some of the care burden. Ambitions to be both efficient and to serve the population in the best possible way require adequate funding for PHC (WHO, 2018).

Overwhelming evidence shows that adequate public funds must be available to achieve UHC. Striving for UHC means working towards multiple goals. Utilization of health care must be based on individual needs among the population and the health services provided must be the most medically effective. These and other health system objectives are within reach only when health care is funded predominantly by public resources (Soucat, 2019). Public funding means financial resources collected through compulsory mechanisms, not voluntary payments at individuals' discretion. In addition, as the entitlement to health care benefits is by definition universal, in UHC, there must be no link to how and when the individual has made their contribution (WHO, 2019a).

1.3. What is budgetary space for health?

Budgetary space for health is a concept for analysing revenues and expenditures, primarily in the public sector, and exploring avenues for increasing, managing and making more use of these resources. There is variation in how the concept is applied. While it is often used to assess options for additional resources for a specific sector, it also includes positioning the funding of a sector within a broader macroeconomic, fiscal and public finance management system. In addition, it can be useful for assessing rational and effective use of public resources (Barroy & Gupta, 2020).

The need for adequate levels and good use of public funding in health makes budgetary space important for the health sector. Health is one of the core public commitments in all countries; consequently, budgetary space for health has been on the agenda for a long time. In recent years, the 2030 Agenda Sustainable Development Goals, an increasing focus on UHC, and the novel coronavirus disease (COVID-19) crisis have all raised the importance of adequate, sustainable and efficient funding of the health sector.

1.4. Aim and concept of this report

This report describes, analyses and compares the potential effectiveness of possible alternatives that can increase budgetary space for health and in particular for PHC. Tajikistan has made tremendous economic and social progress since the early 2000s, as indicated by reduced levels of poverty and substantially lower rates of infant and child mortality. At the same time, with rising living standards comes a changing disease burden and increased prevalence of lifestyle-related medical conditions. In addition, many people in Tajikistan still struggle to access essential health care services and medicines. The current level of public funding to meet these challenges is not adequate; in particular, resources available for PHC are lacking (Neelsen et al., 2021). This report contributes to knowledge about which opportunities exist to strengthen financial resources for health, with a focus on PHC.

1.5. Guiding principles

The analysis of budgetary space options in this report builds on a set of Tajik context-relevant principles, which are all underpinned by WHO guidance on best practices in building a health system. This means the alternatives for increasing budgetary space in health are evaluated based on how well they:

- contribute to progress towards UHC – this implies that (concerning individual health care) all public resources shall fund a SGBP available to the entire population, with utilization distributed according to need and no financial hardship consequences for the individual;
- support Tajikistan to become a leading middle income country in terms of society's allocation of public resources to health;
- are consistent with other public policy ambitions, including the NHSRT 2030 but also policies on economic, social and labour market development;
- are sustainable and realistic to implement.

The effectiveness of each alternative approach to increasing budgetary space for health examined in this report should be seen as indicative. Once the Government has made decisions about which alternatives are most feasible for implementation, further analysis will be needed.

2. Financial resources for health in Tajikistan

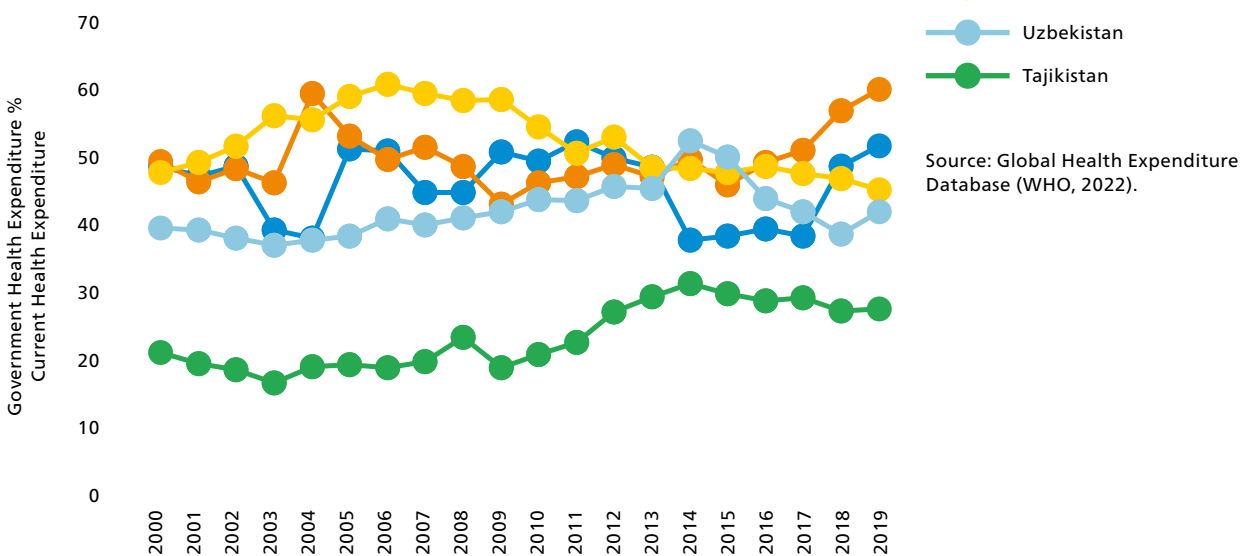
This chapter describes the overall health financing situation in Tajikistan, with a focus on public resources available for health. It shows that public resources in the Tajik health system are scarce compared to other countries, and reliance on out-of-pocket (OOP) payments is high. Public resources that were previously increasing quickly have not grown in recent years. While Tajikistan’s public spending relative to gross domestic product (GDP) is relatively high, the priority among these resources given to health is low compared to other sectors. Moving towards UHC it is imperative to increase resources for PHC, and in particular to mitigate the large variation in funding allocation across the country.

2. Country definition according to World Bank country and lending groups (World Bank, 2021).

2.1. Public spending on health in Tajikistan is limited

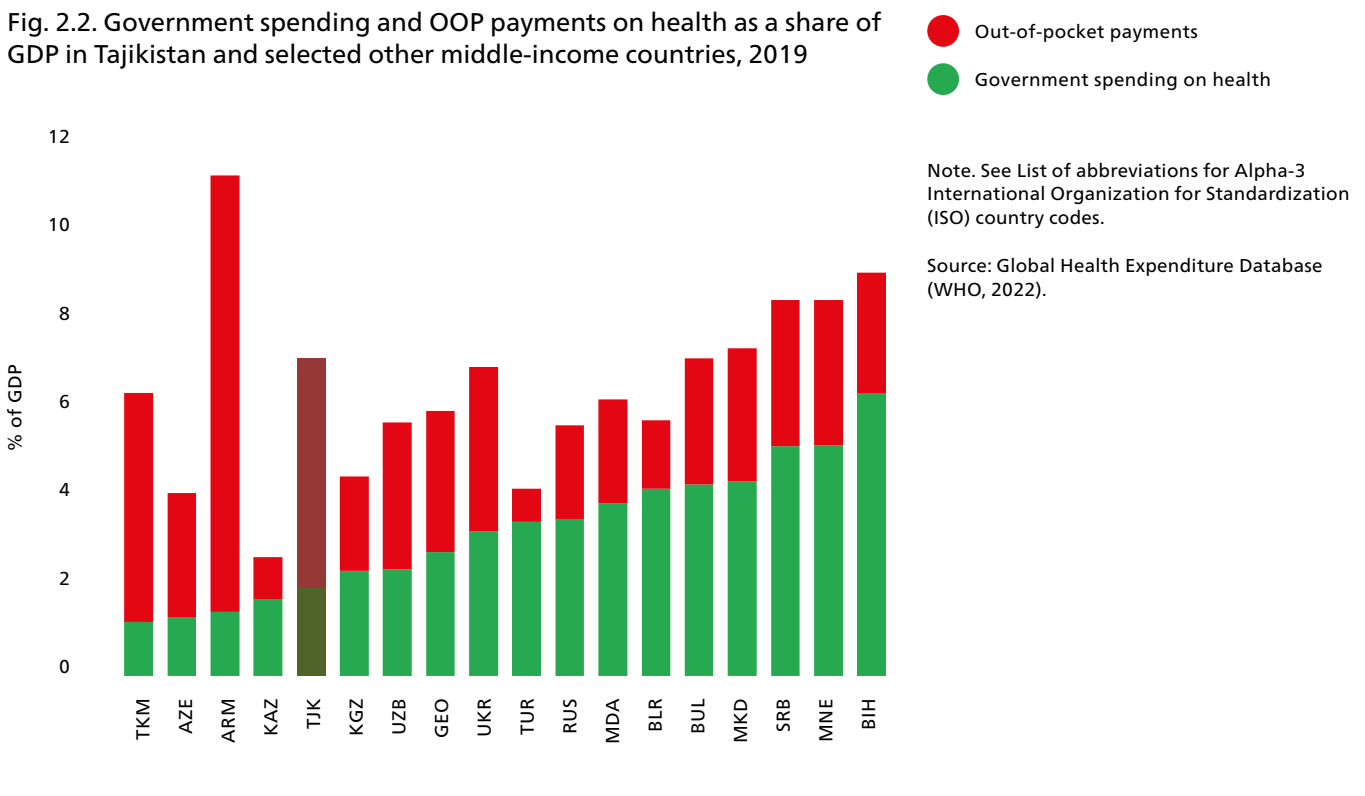
The Tajik Government’s share of spending on health is low; indeed, consistently lower compared to that of neighbouring countries in the same income group (lower middle-income countries, as measured by GDP²). In 2019 this share was 27% in Tajikistan, while all comparable countries’ governments covered more than 40% of health spending (Fig. 2.1).

Fig. 2.1. Government health expenditure as share of current health expenditure in Tajikistan and selected other lower middle-income countries, 2000–2019



Tajikistan’s reliance on OOP payments has negative consequences for households’ financial protection. Tajikistan’s overall spending on health as share of GDP at 7.1% is on a par with other low- and middle-income countries in the WHO European Region (Fig. 2.2); however, public spending on health represents only 2% of GDP. Instead, the country’s reliance on OOP payments for health is very high, constituting approximately two thirds of health expenditure. The large share of OOP payments has consequences for social protection and equity in the health system; with a large dependence on OOP payments comes severe risk of unmet health needs among the population and catastrophic spending on health care services. Low-income families in particular – who have the poorest health status – are vulnerable to this situation (WHO Regional Office for Europe, 2021d).

Fig. 2.2. Government spending and OOP payments on health as a share of GDP in Tajikistan and selected other middle-income countries, 2019



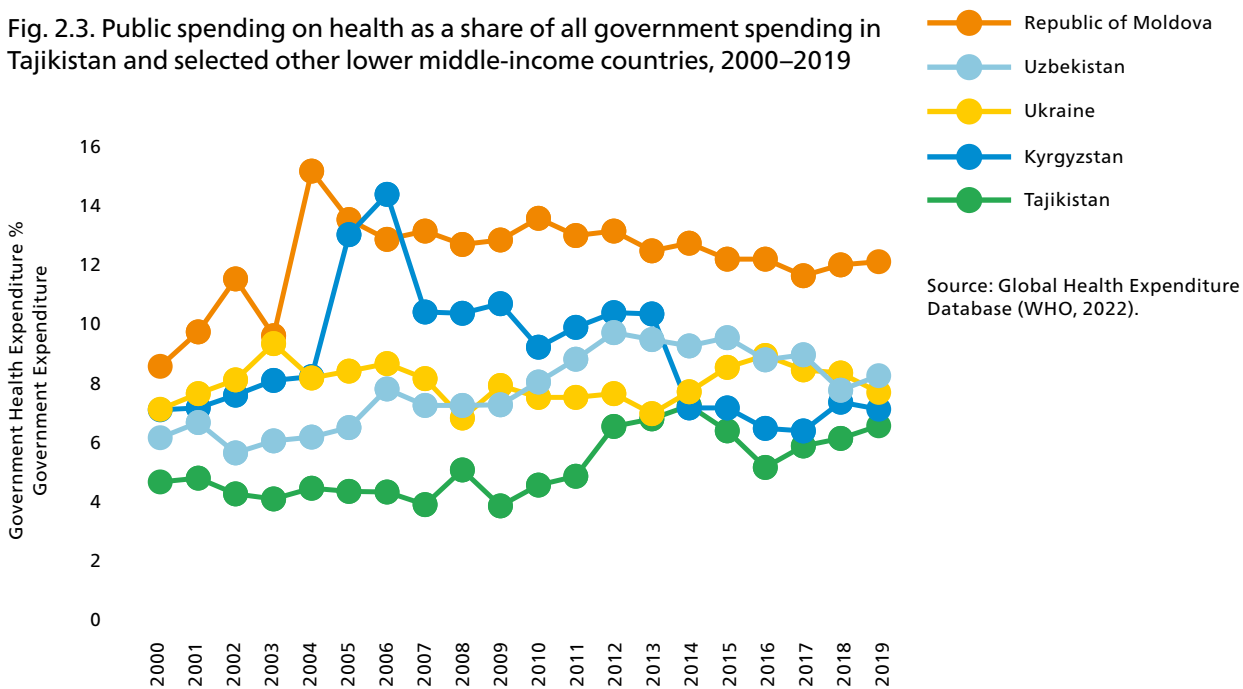
2.2. General government resources are relatively high, but the health sector is not prioritized

A robust public revenue base is an important foundation for the ability to fund public commitments. The ability to raise public revenue forms the basis for funding public commitments, such as the health sector, social services and education. Generally, low-income countries have more difficulty doing this. A major factor is that these low-income economies tend to be less formalized and therefore, by definition, more difficult to tax (Benedek, Benitez & Vellutini, 2022).

Tajikistan has made impressive progress in increasing general public revenue collection. Tax revenue as a share of GDP was 21.3% in 2018 – the second highest in central Asia only after Uzbekistan and significantly higher than in 2000 (around 13%). Total government revenue share of GDP was 29.1% in 2018 and, while tax revenues have stagnated, non tax revenues and grants have increased in recent years. The relatively high numbers reflect strategic and successful reforms in tax policy and tax administration (IMF, 2021). Tajikistan has indeed made significant efforts to increase tax compliance and reduce tax evasion within corporations, both by means of reducing the administrative burden to comply with regulations and applying a competitive tax rate structure (World Bank, 2020).

The long term trend is an increasing priority being given to health in the Government's budget, but the shift needs to be more significant. Of the public resources available, relatively little is allocated to health, compared to other lower middle-income countries in the region (Fig. 2.3). Of general government spending, as measured by internationally comparable data, 6.6% was allocated to health in 2019. This prioritization of health has increased during recent years, but to achieve a health system less reliant on OOP payments, the public priority to health must continue to increase and at greater speed.

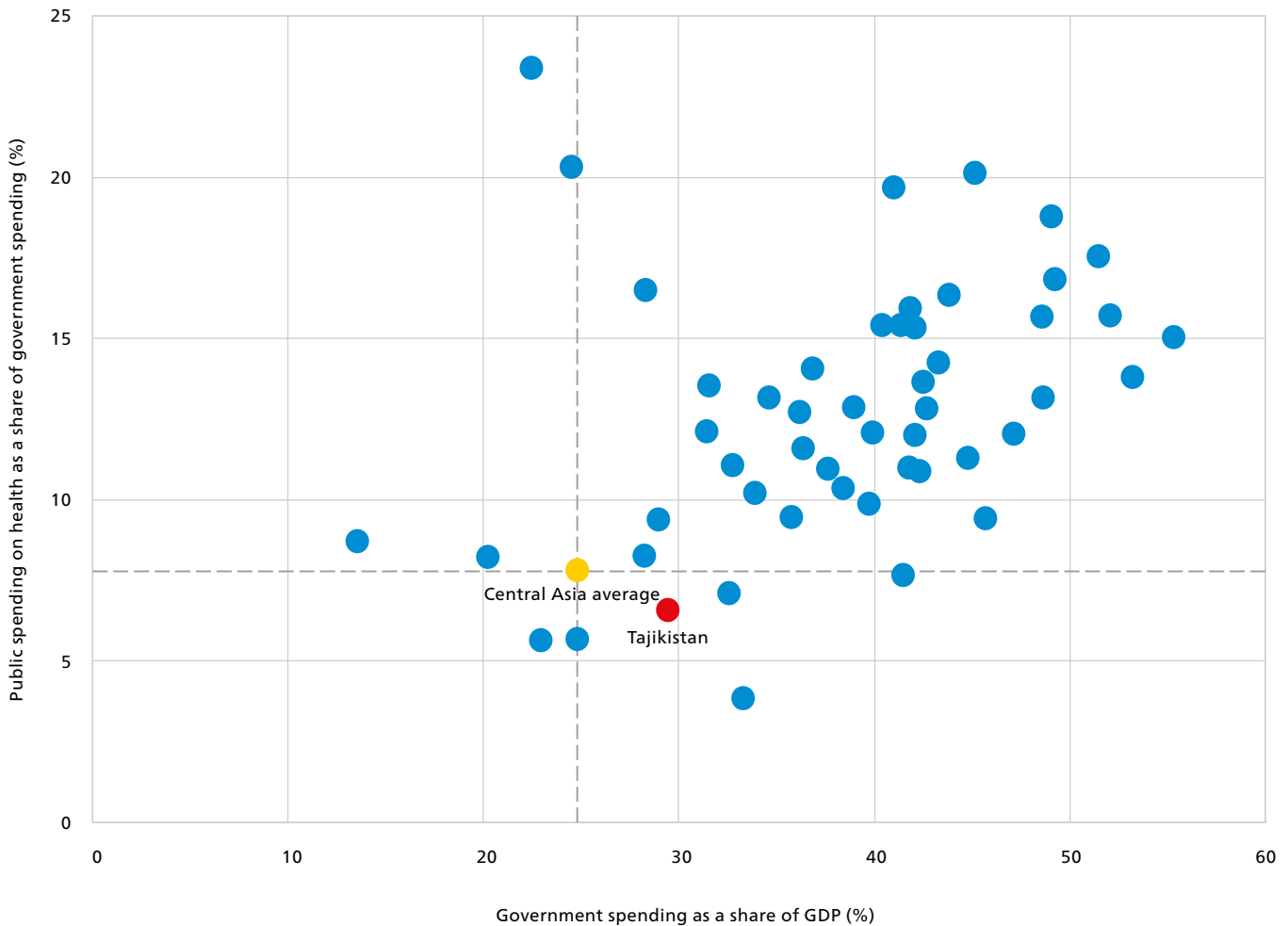
Fig. 2.3. Public spending on health as a share of all government spending in Tajikistan and selected other lower middle-income countries, 2000–2019



As compared with other central Asian countries, it is not general public resources that are lacking, but rather a more substantial allocation of these resources to health. From a WHO European Region perspective, both public resources and their health priority are low in Tajikistan (Fig. 2.4). However, compared to its neighbours, Tajikistan does have relatively significant public resources, equivalent to 29.5% of GDP. This is higher than all central Asian neighbours, except Kyrgyzstan (32.6%). However, of these available public resources, relatively little is allocated to health.

Fig. 2.4. Public spending as share of GDP and health expenditure as share of public spending in all WHO European Region countries, 2019

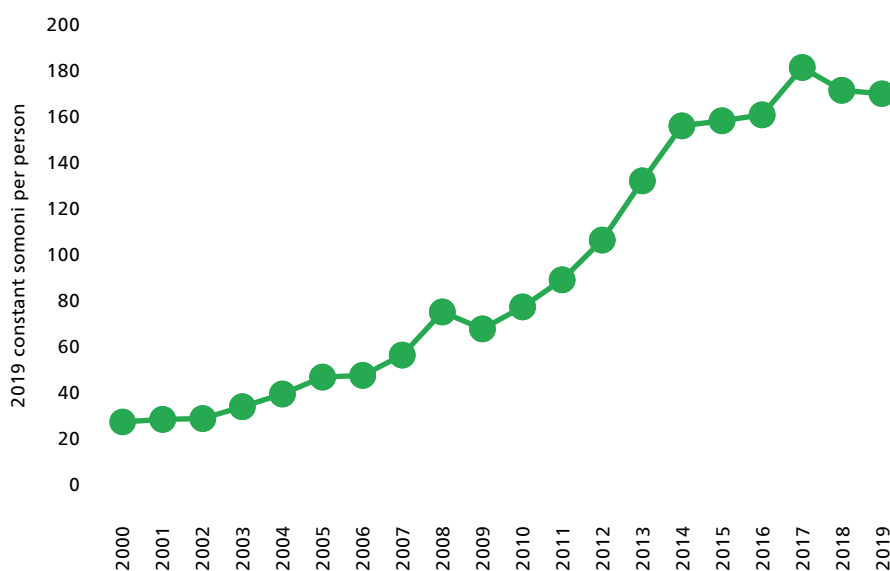
Source: Global Health Expenditure Database (WHO, 2022).



2.3. In absolute terms, public spending on health is low

Stagnating growth in Tajikistan's public spending on health means fewer resources per capita. The increase in resources for health was remarkable at the beginning of the century, due to GDP growth, improved public revenue collection and higher prioritization of health. However, the growth of public spending stagnated in real terms from 2014 to 2019. Tajikistan spent 170 somoni (TJS) per person in 2019 (equivalent to approximately US\$ 17) for all government health commitments (Fig. 2.5). As demonstrated in the sections that follow, these resources are too little, by all benchmarks.

Fig. 2.5. Public spending on health in Tajikistan, 2000–2019



Note. TJS per person in real terms.

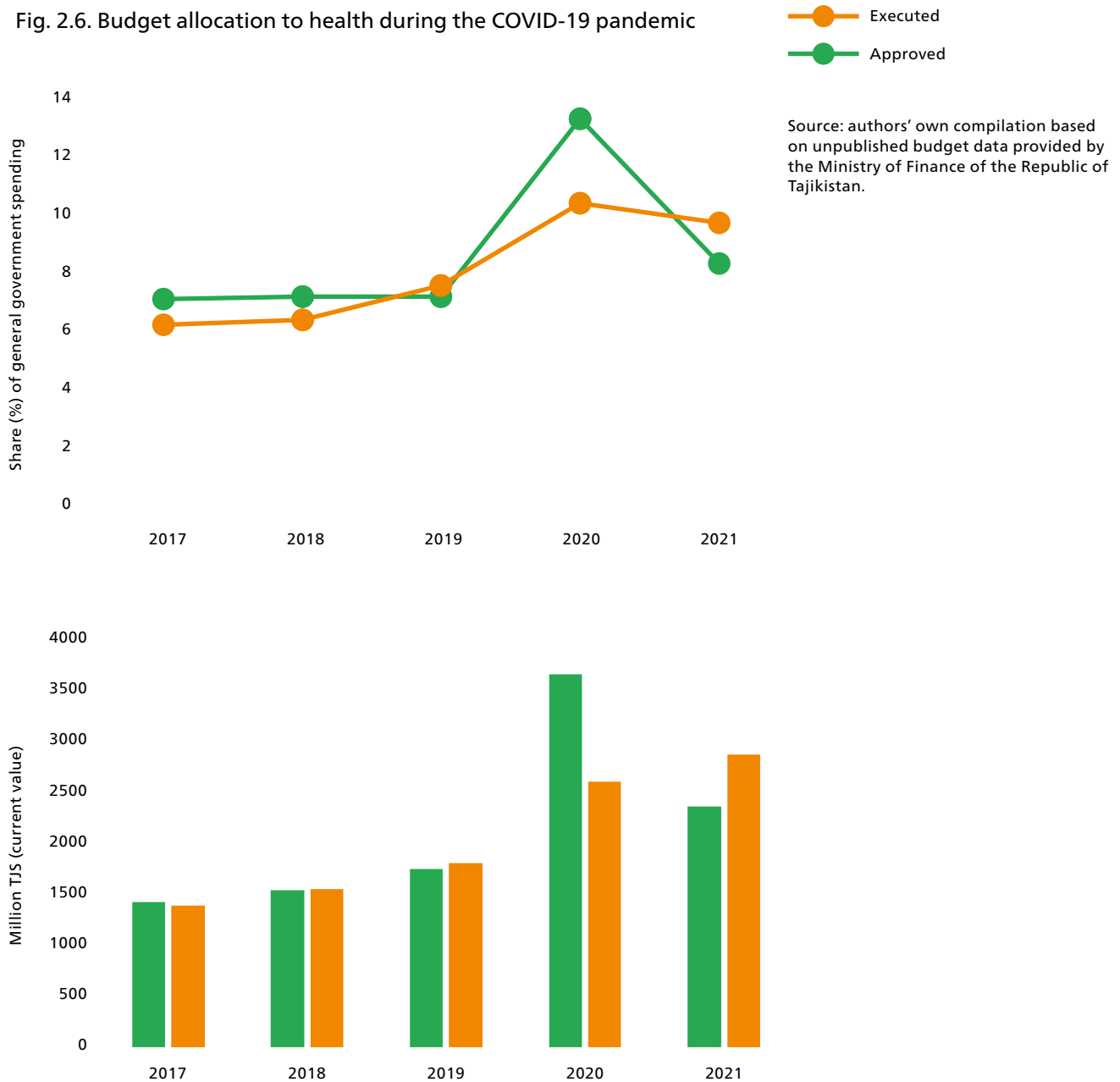
Source: Global Health Expenditure Database (WHO, 2022).

2.4. External funding is not likely to be substantial in the long term

External funds in the form of grants and loans do not play a large part in total funding of health, and long term availability is difficult to predict. Prior to the COVID-19 pandemic, the share of external funds in total spending was marginal, at 1.3% (2019). However, for specific health programmes these funds can be substantial; for example, when initiating a new priority area or rallying against an emergency. The long term availability of external resources is difficult to assess, but the trend among all countries in the region is a decrease in such resources (WHO Regional Office for Europe, 2021d). For Tajikistan, this is likely to continue when the country's positive economic development picks up.

During the COVID-19 pandemic, health spending increased but budget execution was variable. Since the start of the pandemic, the priority afforded to health in Tajikistan's budget increased. As this is partly related to donor contributions in response to the global pandemic, some of this spending is likely to be temporary. The traditionally solid budget execution was also notably more unreliable during this period (Fig. 2.6).

Fig. 2.6. Budget allocation to health during the COVID-19 pandemic



2.5. Low and unequal levels of resources are allocated to PHC

Within the already limited health budget, the priority given to PHC is very low. Less than 1% of GDP is PHC spending allocated from the public budget. This is very low in comparison to other countries in the WHO European Region, but nonetheless places Tajikistan before some of its neighbouring countries (Fig. 2.7). Only 21% of what is spent on PHC is allocated from public resources in Tajikistan (Fig. 2.7). This is very low by international comparison and means that private OOP payments fund the remaining 79%.

Fig. 2.7. Public spending on PHC in Tajikistan and selected WHO European Region countries, 2018

Source: Global Health Expenditure Database (WHO, 2022).

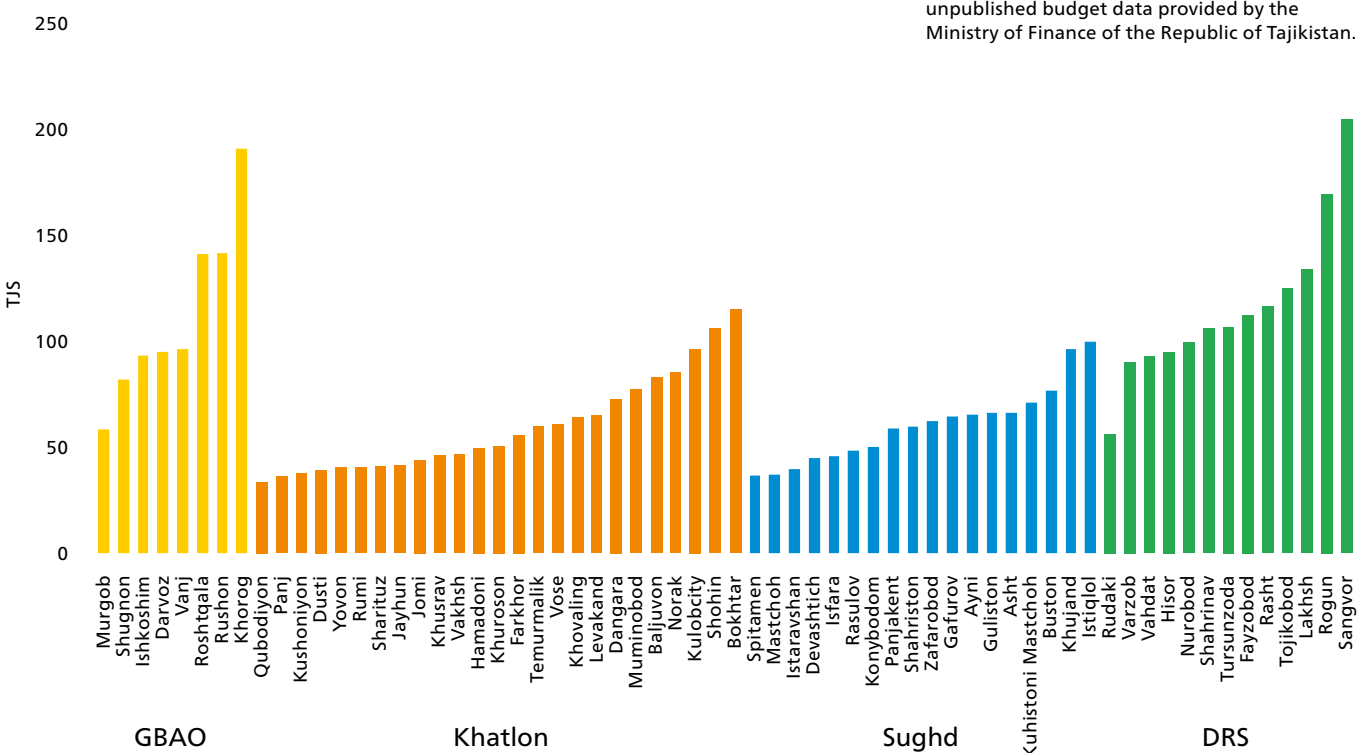


Public resources are fundamental to provide a solid SGBP to the entire population; this, in turn, can help to move Tajikistan towards UHC.

One common characteristic of the four highest spending countries in Fig. 2.7 (Republic of Moldova, Russian Federation, North Macedonia and Kazakhstan) is a publicly funded entitlement to outpatient drugs that is more comprehensive and generous than in the other countries. The absence of a universal entitlement to prescribed essential pharmaceuticals is one of the severe limitations of Tajikistan’s SGBP. Generally speaking, a strengthened and adequately funded SGBP goes hand in hand with more resources for PHC.

The share of district resources allocated to PHC varies greatly in Tajikistan, with a significant variation in how much government resources are available for PHC across the country (Fig. 2.8). One of the main tools to even out the differences in local resources is to use national-level budget resources, primarily in districts with limited local revenues. The potential of this budget subvention system can be more powerful if the health budget is larger. The low priority given to PHC has severe consequences for the ability to fund health services appropriately. It is unlikely that the variation can be explained by correlating differences in needs across the country. Instead, differences in local overall resources – along with the level of priority afforded to health and to PHC in particular – are decisive factors for how much is spent.

Fig. 2.8. Per capita spending on PHC in district budgets, 2020



Note. DRS: Districts of Republican Subordination (central government jurisdiction).

Source: authors’ own compilation based on unpublished budget data provided by the Ministry of Finance of the Republic of Tajikistan.

3. Resources needed in the Tajik health system

Defining an absolute amount of resources needed to provide UHC in any country is difficult, as prerequisites are shifting over time. No absolute amount in terms of TJS or share of GDP represents an optimal level of public spending required to meet health care needs and secure financial protection (Jowett et al., 2016). If recent years' improvement in wealth and social well-being continues, with rising incomes and lower poverty rates, expectations on health services will increase. Already current levels of available resources fall remarkably short in Tajikistan, in terms of most estimated targets of how much is required to provide comprehensive PHC services. A recent study of low- and middle-income countries indicated that US\$ 65 per capita of public spending is needed to provide all needed essential services (Stenberg et al., 2019).

These indicators can be seen as benchmarks and goals to strive towards.

Tajikistan's health spending targets expressed in strategic documents are ambitious compared to the current health budget. In the previous National Health Strategy (2010–2020) (Ministry of Health, 2010), a trajectory of increasing funds was articulated, measured both as government health spending as a share of GDP and as a share of general government spending (Table 3.1). According to the Strategy, by 2020 Tajikistan was intended to have reached levels of public spending on health that would have given the country a leading position in terms of its prioritization of health.

Table 3.1. National health spending targets in Tajikistan

Government spending on health	Target	2009	2015	2020	Actual 2020 levels
% of GDP	5.0	1.9	3.4	4.4	3.1
% of general government expenditure	15.0	6.4	10.0	15.0	10.4

Sources: authors' own compilation based on unpublished budget data provided by the Ministry of Finance of the Republic of Tajikistan and the National Health Strategy of the Republic of Tajikistan 2010–2020 (Ministry of Health, 2010).

Global literature provides useful benchmarks to guide levels of spending. A comparator of how much is spent on health can be expressed as relative to resources available or an absolute amount. Table 3.2 provides four commonly used reference points for comparison of public spending on health. The first two are relative and refer to total health spending. The denominators are total societal resources (GDP) and total general government (public) spending, respectively. The next two are absolute and based on costing exercises of a selected package of health services in a low- and middle-income country; in this case, predominantly health services provided in PHC. Not surprisingly, Tajikistan is closer to the relative benchmarks because they refer to total health spending generally, not PHC specifically. However, because a large share of spending in Tajikistan is allocated to hospitals, there is a significant gap to close in order to fully fund comprehensive PHC.

Table 3.2. Selection of commonly used benchmarks and targets for public health spending, and comparison with 2020 spending in Tajikistan

Defined need	Rationale	2020 Tajikistan level	% difference	Difference in TJS (2020)
In relative terms:				
5 % GDP ¹	Health share of GDP required to attain financial protection and access to high-quality health care	3.1%	1.9%	1 589 million
12 % public spending ²	Health share of total public spending required to attain financial protection and access to high-quality health care	10.4%	1.6%	399 million
In absolute terms:				
US\$ 65 per capita ³	Estimates of the resource need in 67 low- and mid-income countries to fund all essential care needs	US\$ 5.9 for PHC (2020)	US\$ 59.1	5 700 million
PPP\$ 40–200 per capita ⁴	Lower number refers to basic service coverage; higher number indicates the level at which funding is adequate to avoid financial hardship	PPP\$ 23.9 for PHC (2020)	PPP\$ 16.1 – 166.1	340 million – 3 500 million

Note. PPP: purchasing power parity.

Sources: authors' own compilation based on
 1. McIntyre, Meheus & Røttingen (2017);
 2. WHO Regional Office for Europe (2021d);
 3. Stenberg et al. (2019); 4. Jowett et al. (2016).

Tajikistan is at a point where additional resources in PHC can have a large positive effect on the health system. Another study by WHO explored the relationship between levels of public spending on health and performance of a selection health services, all provided in PHC facilities (Jowett et al., 2016). Generally, there is significant variation in performance across countries with different spending levels; however, for most low-income countries, government health spending of over PPP\$ 40 per capita quickly translates into improved population and service coverage. Furthermore, financial protection only improves substantially when government spending is greater than PPP\$ 200 per capita (Jowett et al., 2016). In this health spending range, additional resources allocated to health are likely to have a positive impact on service coverage. Other policies, for example relating to co-payments and benefit entitlements, will need further development to reduce financial hardship for people seeking care. To achieve this superior level of coverage, Tajikistan would need to spend almost seven times more on PHC.

4. Options for greater budgetary space in health

This chapter reviews the main viable options for Tajikistan to increase budgetary space and allocate more resources to health. The quantitative assessments must be seen as an indicative estimation, as the actual ability to raise and allocate funds is dependent on the policies' exact design and the development of the overall economy. The alternatives are based on a framework developed and applied in several countries (Tandon & Cashin, 2010), but are selected to meet the current policy environment in Tajikistan. They are by no means mutually exclusive but are reviewed separately to explain their concepts, provide examples from other countries, and evaluate their potential capacity to increase revenue. The four options are:

- i. higher prioritization of health in the general budget (on all budget levels);
- ii. compulsory payroll-based contributions;
- iii. health taxes;
- iv. efficiency gains within the health sector, which can then be reallocated to more effective and productive health care.

Two important areas are not included in this report, as they are characteristically related to and dependent on the overall economic and social development of the country, beyond the health sector.

1. A growing economy will generate more public resources also for health, but Tajikistan cannot passively rely on economic growth. A growing economy increases a society's ability to allocate more resources to health. It has been estimated that, between 2000 and 2015, more than half of the increase in public resources for health globally was attributable to economic growth (Tandon et al., 2018). At the same time, with increasing wealth, people's expectations on what should be provided will also grow. Therefore, the Government needs to be more proactive than simply relying on economic growth as a source of funding for health.

2. The Government's ability to collect public resources is decisive for overall investment in health and other social sectors. The more general budget resources a country can collect and spend, the more resources can be allocated to health without interfering with other sectors. This aspect is part of a wider public finance agenda on tax and social security. Public resources in Tajikistan are already relatively large and the stagnating trend indicates that raising more new resources may be a limited opportunity (as discussed in Chapter 2).

4.1. Higher priority allocated to health in the general budget

This section describes the necessity for Tajikistan to increase prioritization of health, and of PHC in particular. Most other countries in the region are allocating more of their public resources to health (Fig. 2.3). The share of health in the general budget has increased substantially in Tajikistan since the late 2000s, but it is still low relative to the Government's ambitions for the health sector. It is largely the central government priorities that can take responsibility for decisive steps towards allocating more health resources, without impacting other socially important sectors, such as education. An increase of health spending in the consolidated (2020) government budget by 4.6 percentage points to reach the allocation target of 15% is equivalent to allocating TJS 1 147 million more for health, or a 44% increase in government resources for health.

4.1.1. Current level and process of government resource allocation to health

Substantial changes in domestic resource allocation are needed to meet health priority targets in the years to come. In the final budget execution for 2020, the share of health spending was 10.4% in Tajikistan, 1.6 percentage points short of the 12% benchmark suggested by the WHO Regional Office for Europe (Jakab et al., 2018). This is equivalent to TJS 399 million. The gap relative to the 15% allocation stated in Government Resolution No. 368 and in the National Health Strategy 2010–2020 (Ministry of Health, 2010) was 4.6 percentage points, equivalent to a 44% increase in available resources (or TJS 1 147 million). In addition, during 2020–2021 Tajikistan received external support in response to the COVID-19 pandemic; therefore, to sustain these two years' relatively higher prioritization of health and to achieve the declared ambitions requires a substantial shift to budget increases.

4.1.2. Additional health resources are needed in the national budget, while priorities to PHC can also be further strengthened in local budgets

The budget process in Tajikistan renders the allocation of funds to and within the health sector dependent on priorities at both national level and within local administrations. Moving towards a higher public share of resource allocation to health and to PHC is partly dependent on local and regional budgets. The budget process – with proposals formulated at district level – makes allocations between and within sectors dependent on local budgets.

At national level more resources can be allocated to the health sector without decremental effects for the social sectors generally. In the Tajik health sector, the largest share of expenditure comes from local and regional budgets. Only education, communal services and culture have a higher share of their total resources allocated from local budgets (Table 4.1). This means that, in local budgets, health can be seen as competing

with other social sectors; raising health spending at the cost of these other social needs may not be desirable. A substantial responsibility therefore lies with the national level, where the opportunities for reallocation of resources between sectors is much greater. Indeed, the allocation to the broader social sector is set to increase in the national budget in the near future.³ With such an increase in the budget allocation to the social sector, health spending can increase without crowding out other social needs of the population.

Within the health sector, both national and local-level budget policy can influence allocations to strengthen PHC. The share of PHC spending in the local budgets across the country's districts varies from 24% (Murgob in the Gorno-Badakhshan Autonomous region (GBAO)) to 71% (Bokhtar in Khatlon region), according to official budget data.⁴ Within the health budget, local governments can prioritize allocations to PHC without interfering with other sector priorities. In addition, increasing allocations to health at the national level must be directed towards PHC specifically.

3. This was asserted by the President of the Republic of Tajikistan in his address on 21 December 2021 to the members of Majlisi Milli (Upper Chamber of Parliament) and Majlisi Namoyandagon (lower Chamber of Parliament) of the Government of the Republic of Tajikistan.

4. Unpublished budget data provided by the Ministry of Finance of the Republic of Tajikistan.

Table 4.1. Shares of national and local (average) budget expenditure, 2020

Source: authors' own compilation based on unpublished budget data provided by the Ministry of Finance of the Republic of Tajikistan.

Budget line	Sector	Share (%) of national (consolidated) budget	Local budget share (%) of national budget, per sector
1	State governance and management	5.4	20.3
2+3	Defence, law enforcement, and security	7.4	7.2
4	Education	17.8	71.2
5	Health	10.4	59.3
6	Social insurance and safety	15.5	1.4
7	Communal service and environment	5.7	70.3
8	Culture and sport	4.0	60.8
9	Fuel and energy complex	20.0	n/a
10	Agriculture, fishery and hunting	2.5	4.2
11	Industry and construction	0.7	15.9
12	Transport and communication	4.2	12.2
14	Other expenditure not included in above categories	6.6	7.1
Total recurrent expenditure		100.0	28.3

4.2. Compulsory payroll-based contributions

5. Resolution No. 504 of the Majlisi Milli and the Majlisi Oli of the Republic of Tajikistan, 5 June 2008.

This section assesses the potential ability to raise more revenue for health by means of the social tax system in Tajikistan. It highlights that compulsory payroll-based contributions (explained in Box 4.1) will add very few additional resources to the health sector, if organized in the same way as today's social tax; 5% of what is collected currently is equivalent to 3.3% of total public spending on health, or TJS 84.3 million. This rate would have negative implications for the labour market and require large budget contributions to cover for people who are not formally employed.

4.2.1. Payroll-based social security contributions in Tajikistan

In Tajikistan, like in many middle-income countries with public funding for health based on general budget resources, payroll-based contributions earmarked for health has been an approach on the agenda for several years. In 2008 Tajikistan adopted a law on health insurance.⁵ The law includes a compulsory health insurance element for formally employed individuals and stipulates that the contributions are paid by the employer and collected through the same mechanism as the existing social security system. It does not, however, prescribe whether these contributions would be sourced within the current social tax, or be an additional payment achieved by raising the contribution rate. The law has not yet been implemented and is under revision at the time of writing.

Tajikistan has an established system for collecting social security contributions, known as social taxes. The social tax is a compulsory payment with different rates depending on the employer's legal status. The contribution rate for private employees was lowered from 25% in June 2022 and is now 20% for the employer and two% for employees, while the rates of 25% (employers) and 1% (employees) for public (budget) institutions remain the same. The total revenue in 2020 was TJS 2 910 million. This includes TJS 1 687 million from private legal entities (known as non-budget institutions), and 1 223 million from public employers. These contributions are equal to approximately 12% of total government revenues. Largely, this social tax is designated for pensions (90% of expenditures), while the rest is spent on unemployment and other social benefits (e.g. cash assistance).

Box 4.1. What are compulsory payroll-based contributions?

Payroll taxes are payments based on individuals' salaries. They can be levied on employers or employees, or on both in combination. Payroll taxes are typically, but not necessarily, earmarked for a specific area of entitlement, such as pension or health care. If linked to an entitlement of the contributor, or a defined group of the population, they fall under the definition of a social security contribution. With payroll taxes, health funding becomes largely dependent on the formal labour market income in the country. Payroll taxes increase labour costs and can thus have a negative impact on employment and on economic growth. Several European countries – including Czechia, Estonia, France, Germany, Hungary, Lithuania, the Netherlands and Slovakia – have in recent years significantly reduced payroll taxes for health in their revenue mix, replacing them with increased broad-based general taxation. Additionally, payroll tax collections are particularly problematic where a large share of employment is irregular (e.g. the agricultural sector) and informal. Collection of payroll taxes is not effective in such cases, and more broad-based taxes (not related to employment) are needed to distribute the burden over a wider range of economic activity.

6. On behalf of government employees, TJS 1 223 million was paid in social tax from the public budget. However, these are not additional public resources.

4.2.2. Potential additional resources from a social tax for health care

A social tax for health is unlikely to raise resources that would substantially increase available funds. The ability of a social tax to collect revenues for health is probably similar to today's contributions to the existing social security system. In 2020 the 25% payroll tax in Tajikistan collected TJS 1 687 million in revenues from the private sector.⁶ One percentage point of these contributions allocated to health would represent approximately TJS 16.9 million for a mandatory health insurance (MHI) system, regardless of whether it was allocated from today's contributions or constituted an increased rate (see Table 4.2). The amount is equivalent to 0.7% of the 2020 public budget for health. With a 5% contribution rate, the collected contributions would represent 3.3% of the health budget. This is before possible tax evasion and economic effects are factored in – a risk that increases with the size of the contribution rate.

Table 4.2. Revenue generated by a social tax for health by contribution rate, 2020

MHI contribution rate (%)	Of current social tax (million TJS*)	Health budget 2020 (million TJS)	MHI % of health budget 2020
1	16.9	2 592	0.7%
2	33.7	2 592	1.3%
3	50.6	2 592	2.0%
4	67.5	2 592	2.6%
5	84.3	2 592	3.3%

* Equivalent amount of TJS from current social tax by non-budget institutions (total TJS 1 687)

Source: authors' own calculations based on unpublished budget data provided by the Ministry of Finance of the Republic of Tajikistan.

At any percentage contribution rate, for an MHI, a very large general budget involvement would be required to cover the entire population.

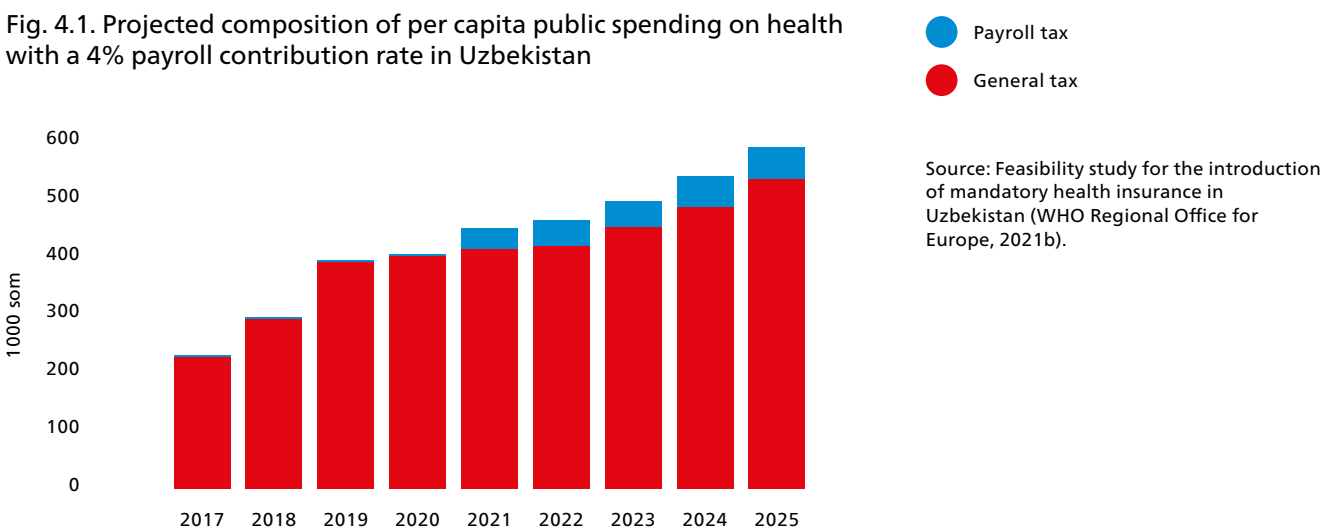
An important principle in designing an MHI system is that the same benefit entitlements must be available for everyone, regardless of whether the individual has an employment status that stipulates a contribution or not. A design whereby parts of the population are entitled to a more generous benefits package can lead to severe negative effects on public health, equity, and health system efficiency. It would also go against the NHSRT 2030, which clearly states the entire population shall be entitled to publicly provided health care.

Over time, a payroll tax is not likely to substantially increase revenues for health. Tajikistan will most likely expand fiscal space for health due to its growing economy and the planned prioritization of health within its existing government resources. The implication is that the role of a payroll-based tax in the funding mix for health care is not likely to become substantial, unless the labour market changes radically. This was similarly the case for neighbouring Uzbekistan, which decided to build a MHI system without a payroll contribution (as explained in Box 4.2).

Box 4.2. The introduction of MHI in Uzbekistan

Uzbekistan recently initiated the establishment of an MHI system. In preparation for the introduction of this insurance system, WHO and the Ministry of Health assessed the revenue-raising ability of a payroll-based tax in the report *Feasibility study for the introduction of mandatory health insurance in Uzbekistan* (WHO Regional Office for Europe, 2021b). It includes a study of the potential revenue that could be raised by two alternative levels of earmarked payroll tax (2% and 4%). The study model included adjustments for labour market effects, such as a lower level of formal labour market participation, and factored in a progressively reducing level of tax evasion, assuming that the initial negative reaction to an increased tax rate would fade with markedly improved health care benefits. Because Uzbekistan, similarly to Tajikistan, had made pledges to increase the allocation to health from the general budget, a baseline scenario projected the available general government resources for health, based on official GDP projections. The additional revenues from a payroll contribution were estimated to reach 6.6% of total health expenditure by 2025, equivalent to TSJ 55 per capita (Fig. 4.1). The remaining resources needed to be sourced from the general budget. As a result of this anticipated limited effect of a new payroll tax, Uzbekistan decided to implement an MHI funded solely by general budget resources, starting on a pilot basis in July 2021. This also avoids additional administrative costs, while allaying fears of the associated negative labour market effects. The estimated revenues are higher than can be expected for Tajikistan, mainly because labour incomes are on average higher in Uzbekistan.

Fig. 4.1. Projected composition of per capita public spending on health with a 4% payroll contribution rate in Uzbekistan



4.2.3. Considerations and risks with compulsory payroll contributions

The introduction of a new or increased payroll tax is likely to have a negative impact on formal labour participation rates and would be a financial burden on private enterprises. An overarching objective of Tajik government policy is to encourage formal job creation and employment. Tajikistan has relatively high levels of corporate taxes. Both social and pension contribution rates in the social security system, as well as corporate income tax rates are higher than in Kazakhstan, Kyrgyzstan, and Uzbekistan. Consequently, the opportunity to add increased labour costs through compulsory payments without further risks to tax compliance and regional competitiveness is probably limited. A recent study on revenue sources for health in Armenia shows that incremental increases in different taxes is better at balancing revenue-raising ability with potentially harmful economic consequences than increasing revenues from one source, and has a more equal distribution across the population (Dudu et al., 2021).

4.3. Health taxes

This section assesses the potential capacity to raise revenues by increasing health taxes. It explains how health taxes can contribute to health system performance and provides examples from other countries. The potential increase in revenues from health taxes can be used for allocations to health and thereby increase the budgetary space for health. A summary of the potential impact on the Tajik health budget is presented, in absolute terms and as share of total health spending. Overall, an increase of existing health taxes could generate an additional TJS 303 million per year, equivalent to 11.7% of total government health spending (2020).

4.3.1. What are health taxes?

Health taxes are special taxes applied on consumption of products that have a negative impact on health. Sometimes called sin taxes, these can include (among others) tobacco, alcohol, and sugar-sweetened beverages (SSB). The primary objective of health taxes is to reduce consumption of goods that negatively affect health. They can be applied in different formats, such as increased value-added tax (VAT), increased import duties, and excise taxes (specific product taxes in addition to the other general taxes used in a country) (WHO, 2019b).

Health taxes are effective both in reducing prevalence of noncommunicable diseases (NCDs) and creating budgetary space for health. They are included in the WHO list of so-called best buys and other recommended interventions to address NCDs (WHO, 2017). These are policies that have relatively rapid positive public health effects, without requiring large investments. With NCDs sharply on the rise in Tajikistan, and health spending being one of the lowest in the region, health taxes would be beneficial from both health and public finance perspectives. Health taxes are sometimes criticized for the potential risks of slowing

down the economy or encouraging illicit trade. However, few studies can confirm these claims, while the evidence for positive outcomes is growing.

Revenues from health taxes are not automatically available for health (and earmarking the revenues is a policy option beyond the scope of this report). Earmarking means allocating all or part of a specific revenue source to a designated purpose, for instance health. There are several arguments for and against earmarking revenues, and good practice is dependent on the country context (Cashin, Sparkes & Bloom, 2017). Within this report, intended to demonstrate the fiscal impact, it is assumed that all potential additional revenues from health taxes are allocated for health. Still, any potential earmarking would need to include broader economic and fiscal considerations before implementation.

4.3.2. Increased tobacco taxes could generate significant revenues

The prevalence of tobacco smoking in Tajikistan is moderate, while consumption of smokeless tobacco is much more common. According to the Global Adult Tobacco Survey (GATS) conducted in Tajikistan in 2016, 6.3% of population aged 15 years and older were regular or occasional tobacco smokers (World Bank Group, 2019). Smoking is higher among young adults aged 20–29 years (9.6% prevalence), and among the urban population. The prevalence of tobacco consumption is much higher among men: 14.3% were current smokers in 2016, while only 0.3% of women reported smoking tobacco. In contrast to moderate levels of smoking, the consumption of smokeless tobacco is high: 12.5% of the population use nasvay. The nasvay market is largely unregulated and informal. Consequently, no taxation is applied for this type of tobacco. According to a World Bank study, introducing excise taxes on nasvay is unlikely to generate any substantial revenue mainly because of the informal nature of the market and low price of the product (World Bank Group, 2019).

Tajikistan has made significant progress in increasing tobacco taxes since the early 2010s. The most recent legislative amendment, implemented in 2021, increased the excise tax on filtered and non filtered cigarettes from €9.8 to €19 per 1000 cigarettes, from €8.5 to €17 for cigars, and from 30% to 70% for other industrially produced tobacco and tobacco extracts.⁷ The recent increase of excise taxes puts Tajikistan ahead of neighbouring countries in terms taxes on cigarettes. Still, a further increase in excises could generate additional financial resources for health and decrease tobacco consumption. Furthermore, tobacco taxation is one of the most cost-effective health interventions (Tobacco Control Playbook, 2016); a 10% tobacco price increase has been estimated to decrease smoking by 5%.

Increased tobacco excise taxes can generate up to 10% equivalent of government spending on health. The excise tax is applied for both locally produced and imported cigarettes. National tobacco production in Tajikistan in 2016 was 432 million cigarettes per year (UNdata, 2016), and import of cigarettes in 2017 was 1.2 billion cigarettes per year (World Bank Group, 2019). If the production and import levels remain the same, an increase in excise of 1 somoni per pack of cigarettes could generate an additional TJS 84.6 million per year, equivalent to 3.3% of government health spending in 2020. Alternatively, an increase in the excise of TJS 3

7. Resolution No. 302 of the Government of the Republic of Tajikistan, 9 June 2018.

per pack of cigarettes could raise an additional TJS 254 million per year, corresponding to 9.8% of government health spending in 2020.

Other countries' experience suggests similar potential for additional revenue. In Iran, it is estimated that the potential additional tax revenue from implementing an excise tax on cigarettes could raise revenue equivalent to 9% of public health spending. Similarly to Tajikistan, smoking in Iran is almost exclusively a male behaviour, with 22% of the male adult population and only 1% of the female population being smokers (Raei et al., 2021). A recent study estimated that increasing prices by 75% from current levels by means of an excise tax can raise approximately US\$ 1 billion in (2017) excise revenue. This revenue would be equivalent to 17.6% of health spending from government budget resources, or 8.9 % of total spending by compulsory revenue schemes in Iran.⁸ In addition, expenditure on health services would decrease, due to the reduced cardiovascular disease burden, and catastrophic payments in the lowest income groups would potentially decrease substantially. This financial protection impact may be higher still in Tajikistan, as OOP payments are lower in Iran.

4.3.3. Additional alcohol taxation is unlikely to create significant budgetary space

Alcohol consumption is relatively low in Tajikistan. The average consumption in 2016 constituted 3.3 litres of pure alcohol per person aged 15 years and older, which is much lower than the WHO European Region average (9.8 litres). Abstainers – that is, people who have not consumed alcohol in the past 12 months – constituted 79% of the population (WHO, 2019c).

Despite lower-than-average consumption, alcohol use increased in Tajikistan since the early 2010s, and people who drink alcohol tend to be heavy drinkers. Alcohol consumption in Tajikistan has increased compared to the 2010 level of 2.4 litres per person. In addition, about half of male alcohol drinkers experience heavy episodic drinking. Beer and spirits are the two most consumed types of alcohol products in Tajikistan. With relatively low levels of consumption, the revenue-raising potential is limited, but higher taxes could curb the current trend of rising consumption. In addition to increased taxes, interventions such as restriction or banning of alcohol advertising, restricting availability of alcohol in the retail sector, and enforcing a blood alcohol limit for driving are considered effective to prevent harmful alcohol use (Akkazieva et al., 2015).

The Government has increased the excise rates on alcohol since the early 2010s. Excise tax on beer increased from €0.1 in 2014⁹ to €0.35 in 2021; for spirits with an alcohol concentration below 80% the excise increased by €1 compared to 2010 rates.¹⁰ Currently, Tajik alcohol taxes are high in terms of pure alcohol excise rates compared to some neighbouring countries (for instance, Kyrgyzstan and Uzbekistan¹¹ (Press Service of the State Tax Service, 2021)). However, they are still low compared to the Russian Federation.¹² The 2021 excise rates for alcoholic beverages are presented in Table 4.3.

8. The share of spending is the authors' calculations based on National Health Accounts data from Iran for the same year as the study estimates (2017).

9. Resolution No. 102 of the Government of the Republic of Tajikistan, 15 February 2013 (Tax Committee of the Republic of Tajikistan, 2022).

10. Resolution No. 126 of the Government of the Republic of Tajikistan, 2 April 2005, amended 30 March 2010 (No. 189) and 30 June 2012 (No. 348) (Tax Committee of the Republic of Tajikistan, 2022).

11. Law No. ZRU-659 of the Republic of Uzbekistan, 30 December 2020.

12. Tax Code of the Russian Federation (Part Two), No. 117-FZ, 5 August 2000, amended 26 March 2022).

Further increasing alcohol taxes has only limited potential to raise additional public revenue. According to Tajik customs data, in 2020 the cost of all imported alcohol beverages was about USD 7.3 million, equal to TJS 73.8 million (Customs Service of the Republic of Tajikistan, 2020). Increasing the end value of these products by 10% using increased excise tax rates could generate TJS 7.4 million of additional budget for health (0.29% of the health budget). In 2020, the Government collected TJS 9 million in taxes for locally produced alcohol. Increasing the taxes by 10 percentage points will generate less than TJS 1 million per year. The total potential of revenue increase by this method is low: about 0.3% of the health budget.

Table 4.3. Excise taxes for alcoholic beverages in Tajikistan, 2021

Type of product	Excise (€ per litre)
Beer	€ 0.35
Wine and vermouth	€ 0.50
Spirit with alcohol concentration above 80%	€ 2.5
Spirit with alcohol concentration below 80%, liquors, other beverages	€ 3.5 (per litre of pure alcohol)

Source: Government Resolution No. 397 of 6 August 2018 (Government of the Republic of Tajikistan, 2018).

4.3.4. Taxes for SSB could be further increased

The share of people who are overweight and obese is high and introducing a tax on SSB could help to reduce risks of NCDs, especially among children. In 2017, 68.4% of the population aged 35–69 years were overweight or obese (WHO Regional Office for Europe, 2021e). Although excessive body weight is caused by multiple factors, consumption of SSB can be a contributing factor. Availability and affordability of SSB are especially concerning with regards to child obesity and future health outcomes, as beverage preferences develop in childhood and decreasing consumption later is known to be more difficult (Köhler et al., 2017).

Tajikistan has practiced excise taxes on SSB for more than a decade (Government of the Republic of Tajikistan, 2010). As of 2022 this type of health tax accounts for €0.03 (TJS 0.38) per litre of product.

However, the level of excise is currently very low and has potential to discourage unhealthy consumption if increased. There is no universal best practice benchmark for taxes on SSB. However, experiences from other countries suggest that increasing the tax level to at least 20% of retail price would be required to reduce consumption (WHO, 2016).

International projections suggest some additional revenue could be made available for health in Tajikistan. In Estonia, it was estimated that an introduction of €0.2 in tax could generate about USD 19.3 million in a year (2014 consumption level), equivalent to 1.6% of government health spending. In Ukraine, it was estimated that the introduction of a €0.13 excise could generate up to USD 264 million per year (WHO Regional Office for Europe 2021c), accounting for 6.1% of total government

spending on health in 2019. Currently, no budget and consumption data are available to assess how much revenue is generated by the TJS 0.38 excise tax in Tajikistan. However, using the Estonia example for increased revenues by introducing an SSB tax, an increase of 1.6% on the government health budget in Tajikistan would mean TJS 41 million per year additionally available for health spending.

4.3.5. Health taxes can increase budgetary space for health

This review shows that the potential additional revenues from health taxes are equivalent to 11.7% of total current public health spending, or TJS 303 million per year. The most significant increase in revenues may be achieved by increasing tobacco tax. Alcohol and SSB excises do not seem to have substantial potential for generating additional revenue (Table 4.4).

Table 4.4. Summary of possible additional revenue from introduction of health taxes

Product	Excise increase	% of health spending (2020)	Possible additional revenue per year (TJS)
Tobacco	Additional TJS 3 per pack of cigarettes	9.8	254 million
SSB	Equivalent to estimations from Estonia	1.6	41 million
Alcohol	10% increase in price of imported alcohol	0.3	8.3 million
Total		11.7	303 million

The potential additional revenue may change over time. As mentioned above, health taxes are predominantly applied to decrease consumption of harmful products and should foremost be seen as a policy for this purpose. Decreased consumption, consequently, will result in lower revenues if excise taxes are not subsequently amended.

4.4. Efficiency gains in the hospital sector

This section explains the potential resources envelope in the hospital sector that could be spent much more efficiently. The assessment shows the same level of hospital services can potentially be provided with an estimated 51% less financial resources. This is equivalent to 19% of health spending in 2020. There are also other services that can be provided more efficiently. Therefore, the results represent only one part of the current provider system and the actual potential efficiency gains are likely to be greater.

Efficiency gains are not about cutting costs, but enabling the best possible use of resources. Resources from efficiency gains can be used to invest in higher quality and volume of priority health services. While the assessment focuses on potential savings in the hospital sector, it is important to note that the starting point is more effective PHC, which will require more resources allocated to this level of care. When primary care is appropriately staffed and equipped, and working according to the best available evidence, fewer people will need the more costly, curative hospital services. This transition is demanded from the highest political level, recently expressed in the Tajik President's appeal to both national and local governments: "...to take explicit actions to ensure achievement of fiscal revenues in a timely and quality manner, to increase the efficiency and transparency of public expenditures."¹³

4.4.1. Framing the meaning of efficiency in this report

All countries need to allocate resources within the health sector to ensure the best use is made of them. It is any government's obligation to strive towards making optimal use of its resources in any sector. All entities of the health care system should always seek to deliver the highest level of outputs and benefits with its staff and physical resources, be that in a rural health clinic or a state tertiary hospital. This is known in the field of economics as technical efficiency: to produce the highest level of output for a given set of inputs. The concept of allocative efficiency also exists, which means shifting the input resources to where they can be most productive. For several decades this has been one of the fundamental economic arguments for rationalizing hospital services and enhancing PHC.

To ensure comprehensive PHC for everyone, which is the most cost effective mode of health provision, Tajikistan needs to shift resources from inpatient to outpatient services. On average, European Union (EU) countries allocate approximately 30% of health spending to inpatient services (Schwierz, 2016). In Tajikistan, inpatient services expend 46.5% of total public resources for health.¹⁴ This allocation of resources is unlikely to be efficient, as in countries with fewer resources for health, funding needs to be focused on essential disease prevention and maternal and child services before more advanced care can be provided.

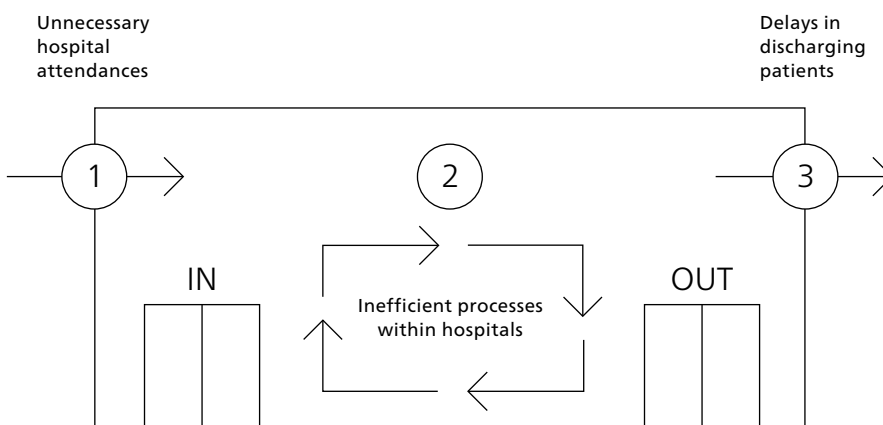
13. Address by the President of the Republic of Tajikistan to members of Majlisi Milli and Majlisi Namoyandagon of the Parliament of the Republic of Tajikistan, 21 December 2021.

14. This is according to unpublished National Health Accounts data for 2017 provided by the Republican Centre of Statistics and Medical Information.

A framework for hospital overuse can be applied to explain the additional budgetary space available within the health sector. Three dimensions of overuse are visualised in Fig. 4.2. The case for a purposeful use of the budget in the hospital budget starts with eliminating avoidable and unnecessary hospitalizations. Next, this report lets bed occupancy be (a proxy) representative of how much of hospital resources are de facto used. Finally, average length of stay (ALOS) in hospital is used as a proxy indicator for how efficient hospitals are in treating patients.

Fig. 4.2. Dimensions of hospital overuse

Source: OECD (2017).



4.4.2. PHC effectiveness, and unnecessary and avoidable hospitalizations

Unnecessary and avoidable hospitalizations are patient cases, which could have either been treated in ambulatory care settings, or could have been prevented from happening at all. Many common diagnoses, such as hypertension, asthma, chronic obstructive pulmonary disease, congestive heart failure and diabetes have established, evidence based prevention and treatment protocols. They build on prevention, early detection and appropriate management after diagnosis, and are interventions that are both cheaper to provide and more convenient for the patient when carried out in the PHC setting (The Health Foundation, 2011).

In Europe, a significant focus is placed on economizing resources by increasing primary care effectiveness and preventing patients from needing hospitalization. Policies to decrease avoidable hospitalizations have been largely focused on chronic conditions, such as congestive heart failure and diabetes, as these should not lead to hospitalization at all – at least not unless the patient is elderly and/or has multiple conditions. A case in point is Germany, which has one of the largest hospital sectors in western Europe. The degree of preventable hospitalization due to congestive heart failure has been estimated to be as high as 64%, equivalent to about 1 million hospitalizations per year for this condition only (Sundmacher et al., 2015). In the EU, more than 10% of all curative

care hospitalizations may be preventable, with large variation across countries. In some of the countries with very large bed capacity, such as Lithuania, Bulgaria, Germany, Latvia and Romania, close to 20% of all hospitalizations are preventable (Schwierz, 2016).

In Tajikistan a large share of hospitalizations could be avoided, primarily to the benefit of the patients but also resulting in more rational use of financial and human resources. Many hospitalization cases caused by congestive heart failure and diabetes are likely avoidable, even though these conditions are underdiagnosed (Statistical Agency under the President of the Republic of Tajikistan, MoHSP of the Republic of Tajikistan & ICF, 2018). In addition, maternal and child health complications in Tajikistan have unnecessarily high rates of hospitalization. A recent medical records study of 440 hospitalized children aged under 5 years from 13 hospitals shows that 40% of these hospitalized children had conditions that could have been managed entirely in PHC settings. In the same study, 422 medical records from hospitalized pregnant women were reviewed; of these cases, 69% of the hospitalizations were considered unnecessary (WHO Regional Office for Europe, 2022). With lower levels of hospitalization, staff working in inpatient settings could be used in outpatient settings to continue to serve the population as part of a more efficient and effective health care system.

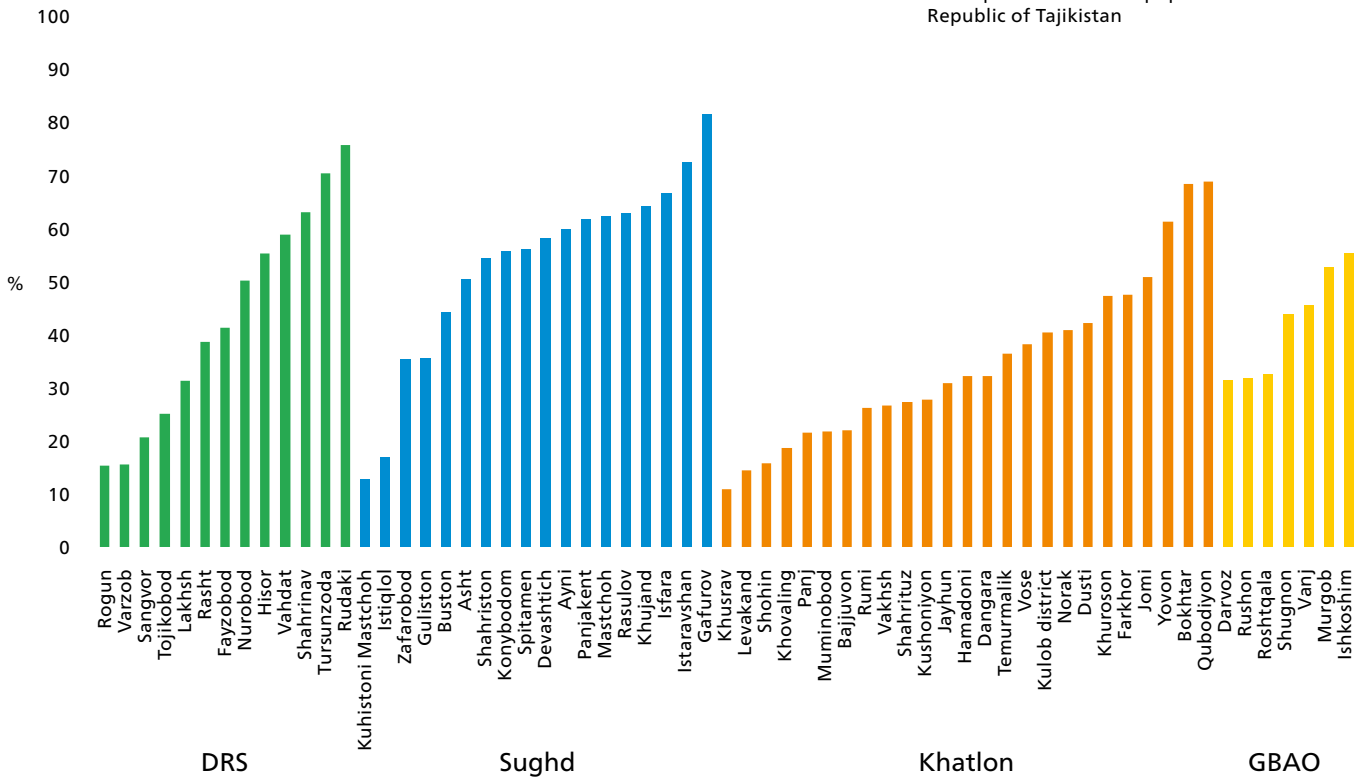
4.4.3. Bed occupancy and inefficient use of resources within hospitals

Physical hospital resources are underutilized in Tajikistan. Hospital services are broad and complex, and a single indicator cannot capture all aspects of inpatient care efficiency. For the purposes of this report, efficient use of resources within hospitals is indicated by the bed occupancy rate, as a proxy for the extent to which hospital resources are actually fully used. International statistics allow for a comparison of curative care beds, on which a large proportion of countries can report. Tajikistan has a bed occupancy rate of 67%, which is well below the majority of countries in the region.

Tajikistan shows significant differences in bed occupancy rates across the country, indicating great potential for efficiency gains. When resources are spent but not used, for example in the case of funding empty beds, it is a strong signal that services should be provided differently. Fig. 4.3 shows the average bed occupancy rates for all types of beds by district, for local (district) hospitals only, grouped by region. On average, these rates are considerably lower than in regional (oblast) and state hospitals. The variation is enormous, from 11.0% to 81.5% across the country. Hospitals with very low resource use can be found in all parts of the country, not only in districts close to the capital Dushanbe. On average, only 42.5% of local hospital beds are used over the course of a year. Only 26 of 64 district hospitals have a bed occupancy rate above 50%.

Fig. 4.3. Average bed occupancy rates in local hospitals by district in Tajikistan, 2020

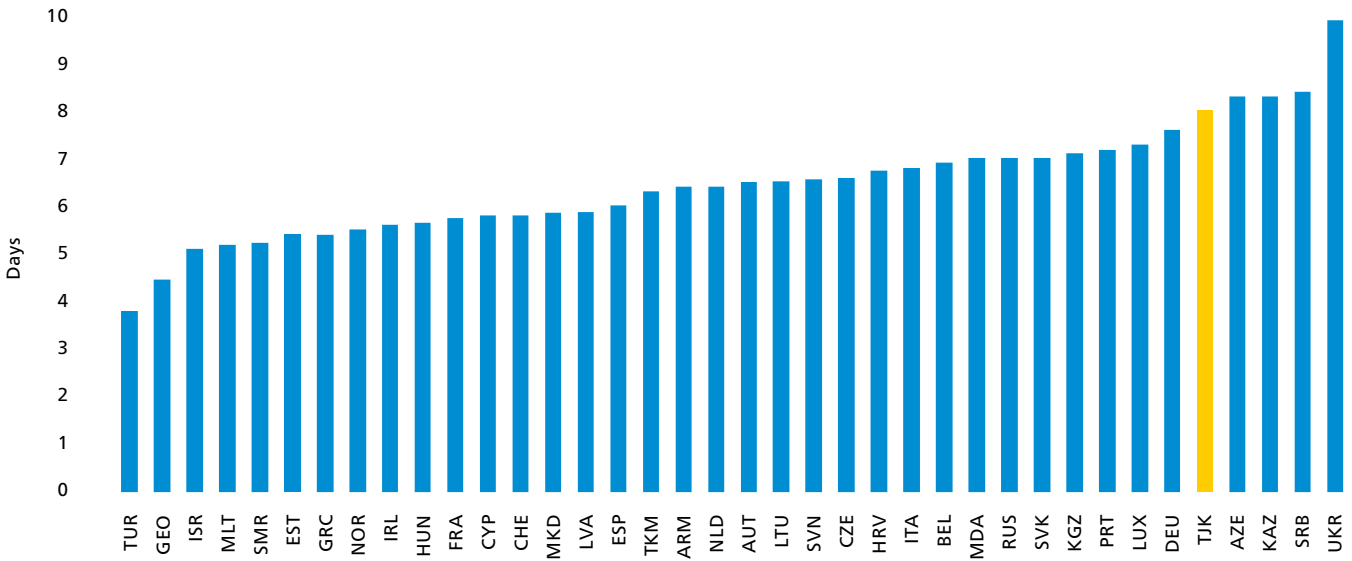
Source: unpublished data provided by the Republican Centre of Statistics and Medical Information of the Ministry of health and social protection of the population of the Republic of Tajikistan



4.4.4. Length of stay and unnecessary delays in hospitals

Tajik patients stay longer in hospitals than elsewhere. How long patients stay in the hospital is influenced by bed availability, medical practice and collaboration with post-discharge services, whether at home or in ambulatory care settings. With an ALOS of eight days for curative care hospitals, Tajikistan has among the longest ALOS per patient in the region (Fig. 4.4). The figure has decreased from 13 days 1999, in line with the regional trend over the decades. But this development has stagnated since the mid-2010s and much could be gained from further shortening patient lengths of stay in hospitals.

Fig. 4.4. ALOS per inpatient in Tajikistan and selected countries* of the WHO European Region, 2019



*for which data were available.

Source: WHO European Health for All Database (WHO Regional Office for Europe, 2021a).

Patients in Tajikistan are often treated in hospital longer than is medically warranted. In the study on unnecessary hospitalization in Tajikistan, children assessed to be unnecessarily hospitalized had the same ALOS (eight days) as hospital-relevant cases. In addition, among the necessary hospitalizations, 63% were kept in hospital longer than needed. For pregnant women experiencing a complication, the hospital stays lasted on average seven days. Among necessary hospitalizations only, 39% of stays were considered to have been longer than medically justified. The study confirms what the international statistics indicate: patients spend longer in hospitals than needed. In addition, if new methods in diagnostics and surgery were to be applied, stays could be shortened even further. With modernized equipment, appropriate surgical training and good follow-up processes, many interventions could even be carried out without hospitalization (see Box 4.3 on day surgery in Europe).

Box 4.3. Development of new ways of working in hospitals – the case of day surgery in Europe

Day surgery is defined as a surgical intervention on a patient, with the intention to admit and discharge them on the same day as the intervention (Bailey et al., 2019). Advances in medical technologies – in particular the diffusion of less invasive surgical interventions and better anaesthetics – have made radical changes in surgical procedures possible over the decades. These developments improve patient safety and health outcomes, and allow significant savings per hospital case, if managed properly. Day surgery is most useful for routine and common surgical procedures, such as cataracts, hernia, varicose veins and hand surgery. They account for 34% of all tonsillectomies in Organisation for Economic Co-operation and Development (OECD) countries and at least 90% of all cataract surgeries in the majority of these countries (OECD, 2017). Practice varies greatly across Europe but countries are increasingly extending the scope of day surgery to more complex interventions, such as surgery on shoulders, thyroid, gallbladder, and interventions for gastro-oesophageal reflux and obesity. By some estimates, eight out of every ten surgical operations could be done as day cases (HAS & ANAP, 2013).

15. Reference values need to be interpreted with caution, as there are many differences that complicate comparison. For example, the numbers are not adjusted for case-mix following differences in burden of disease and age structure.

4.4.5. A numerical example of the potential budgetary space available from hospital savings

While there is no defined optimal level of hospital resource use, comparators indicate the potential for more efficient use of resources. Hospital overuse can be explained by cases that should not be there, how close to full capacity services are in terms of human and physical resources, and whether patients are discharged when there is no medical reason to keep them in hospital. To demonstrate the potential gains, an estimate was made of the overuse for each of these dimensions. Table 4.5 compares the national average by each dimension of resource use to the region in the country with the highest performance, defined as: lowest number of admissions; highest bed occupancy rate; lowest ALOS.¹⁵

Table 4.5. Potential efficiency gains in hospital resource use at national level, by Tajikistan's best-performing regions, 2019

	National average	Tajik region with highest performance
Admissions per 100 people	8.9	6.2 (Khatlon)
Bed occupancy rate (%)	54.5 (all cases) 66.9 (curative)	63.7 (Dushanbe, all cases)
ALOS (days)	8.1	6.6 (Khatlon)

Source: authors' own compilation based on unpublished data provided by the Ministry of Health and Social Protection of Population of the Republic of Tajikistan.

Tajikistan can achieve the same level of care from its hospitals, with much less expenditure, by using all hospital resources at the level of the highest performing region in the country. Table 4.6 translates how much the efficiency gains represent as share of total hospital budget resources in Tajikistan in 2020 (TJS 938 million). The three dimensions of hospital inefficiencies interact in a complex way, which means that individual types of efficiency gains cannot be aggregated with this model. Therefore, the accumulation is derived by adding the net difference on the previous dimension. First, if all hospitals would admit the same share of the population as in Khatlon region, 30% of hospital resources could be saved. Next, the net effect if all hospitals also had the same bed occupancy rate as in Dushanbe, another 14% of the remaining resources could be saved. Finally, if all these patients nationally had spent the same time in hospitals on average as they do in the Khatlon region, 19% of the remaining resources could be saved. The calculation demonstrates the large potential savings from each dimension and gives an idea of how much it could represent in total. More than half of the hospital budget (TJS 482 million) could hypothetically be saved if all these effects were in place simultaneously.

Table 4.6. Potential savings from rationalizing the hospital sector in Tajikistan

Efficiency gain	Difference between national average and benchmark	Share of Tajikistan's TJS 938 million hospital expenditure		Accumulative net saving effect
#1 Admissions per 100 people	(30%) National: 8.9 Khatlon: 6.2	285	30% of total	285
#2 Bed occupancy rate (%)	(14%) National: 54.5 Dushanbe 63.7	94	14% on remaining 653	379
#3 ALOS (days)	(18%) National 8.1 Khatlon 6.6	104	18% on remaining 559	482

4.4.6. Potential efficiency gains within the health sector

Clearly, very large efficiency gains are within reach. The assessment of aggregate data in this section shows that as much as TJS 482 million could be saved, only in the hospital sector, which is equivalent to 19% of total health spending in 2020. This is in line with the recent World Bank review of public health expenditure, which applies a composite measurement of hospital efficiency and concludes that Tajikistan has the lowest hospital efficiency among the central Asian countries (Neelsen et al., 2021).

Savings from efficiency gains need to be kept within the health sector.

Many international examples show that it can be difficult to ring fence and reuse efficiency gains made in the health sector (Barroy et al., 2021). This risk not only means resources could be reallocated to other sectors, but it can also be detrimental to hospital and district management's incentives to be efficient, for example.

Changes in the budget process and financial incentives (health financing reforms) should be coupled with more autonomy for health care providers, to support change in the hospital sector. A budgeting and payment system based on patient need and actual provision of care (instead of the current financing of health facilities based on inputs) can work towards the aforementioned desired (and needed) efficiency gains. However, this also requires hospitals to be made responsible for their resource use. For example, if a hospital manager can keep the gains from downsizing the number of beds in the hospital and invest that resource in staff and equipment, fewer beds are likely to be empty over the year.

In addition to improved PHC and financial incentives for hospitals, clinical pathways must be updated to change the care structure. Medical guidelines and practices with regards to hospitalizations must be revised, just like discharge practices. For example, pregnant women who require follow-up after discharge are currently not referred to active home care, which can be provided by PHC services; if in place, the need for hospital services for these patients would decrease. Currently, weak coordination (including information sharing) between PHC and hospitals makes effective and comprehensive care pathways difficult (WHO Regional Office for Europe, 2022).

Capacity planning and administrative decisions about re-profiling and mergers will be needed. To specify how to re-profile and merge hospitals across geographical areas and functions, much more analysis is needed of diagnosis patterns and hospital capacities. Physical investment in hospitals is needed to enable more effective care, as existing infrastructure is old and does not take into account modern treatment methods. This implies that not all savings in hospital efficiency can be moved directly to other types of care; rather, some savings will need to be reinvested into upgrading hospital capacities. This is unlikely to happen unless administrative decisions are made on where to concentrate specific capacity, so that services that can be centralized are provided in fewer places.

5. Summary of options to increase budgetary space for health and recommendations for action

Tajikistan needs a considerable increase in public resources to fund health care. Investment in PHC in particular is lagging behind compared to WHO assessment results, international literature, and recommendations of the recent Lancet Commission on financing PHC (Hanson et al., 2022).

Affording higher budget priority to health and health taxes would enable higher public health spending, and efficiency gains could then be reinvested in health. Table 5.1 summarizes the alternatives in terms of their ability to increase budgetary space, justifications, and any particularly notable aspects.

Table 5.1. Proposed alternatives and their ability to increase budgetary space for health

Option	Ability to increase budgetary space	Justification	Key notable aspects
i. Higher prioritization of health	Very high (>20% of today's public spending) Estimate: 44%	Higher spending on health is defined as a country objective in Government Resolution No. 368, which states that health expenditure should be at least 15% of total government spending.	In 2020-2021, health spending increased mainly due to COVID-19 support from external sources. To sustain this level, national resources need to increase.
ii. Compulsory payroll-based contributions	Low (<10% of today's public spending) Estimate: 3.3%	A payroll-based tax is not likely to become a substantial part of Tajikistan's total health revenue mix, unless the labour market changes radically (because of the country's strong informal economy).	An increased payroll tax is likely to have a negative impact on formal labour participation rates and would be a financial burden on private enterprises.
iii. Health taxes	Moderate (>10% of today's public spending) Estimate: 11.7%	Increasing health taxes is effective, both in reducing prevalence of NCDs and in creating budgetary space for health.	Increased taxes on tobacco and SSB can generate significant revenues, which could be allocated to the health sector.
iv. Efficiency gains in hospitals	Moderate (>10% of today's public spending) Estimate: 18.6%	This option does not require additional resources, but better use of already available funding. Gains achieved by changing how services are provided must be reinvested in the health sector for better health outcomes.	Prioritization of PHC, capital investments, and developed clinical practices are prerequisites for any major efficiency gains.

In comparison with the various alternatives, payroll-based taxes cannot contribute much revenue to the health budget. The budgetary space assessment demonstrates that payroll or social taxes are not a realistic strategy to meet the need for additional resources in health, resulting in only marginal contributions. They would also mean either lower social benefits in other sectors, or an additional tax burden on labour costs. Furthermore, a social tax increase would be inconsistent with the recent Government decision to lower social taxes for private companies from 25% to 20%. Revising the 2008 health insurance law in light of this reality check is an important step in Tajikistan's efforts to implement MHI as a corner-stone of modernizing its health system.

A combination of several resource mobilization efforts, structural efficiency measures and higher level pooling of funds can jointly have a large positive impact on UHC. This review demonstrates that no single additional collection mechanism will adequately increase available resources for health. The alternatives are not mutually exclusive but can

be used simultaneously to increase the health budget. This is in line with a recent report from the International Monetary Fund, which similarly concludes that countries can seldom identify a single source for increasing public revenue (Benedek, Benitez & Vellutini, 2022).

The alternative options reviewed require different time horizons for policy development and implementation. In the short term, giving higher priority to health in the budget is probably the most effective option, as it can in principle be implemented from one year to the next. Changes in health taxes can also make a difference within a relatively short time frame. On the other hand, efforts that take longer to take effect – such as efficiency gains – are equally important and more complex policy changes should not be neglected purely on the basis that they are likely to pay off only in the long term.

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